

Medical Officers of Schools Association. 6

MEALS AND FOOD FOR THE SCHOOLBOY.

A PAPER READ BEFORE THE ASSOCIATION

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BY

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MEALS AND FOOD FOR THE SCHOOLBOY.

WHEN I was asked to introduce this subject—as to the importance of which we are all agreed—it was suggested that I should endeavour to stimulate discussion by starting some heresy or introducing some novel idea. I may unintentionally state some heresy, but I fear that new ideas will be wanting. I have, however, collected a few facts to form a basis for discussion ; and, in order to confine it to practical and useful limits, I have been requested to restrict my remarks to the following points :—

Meals :—The hours and duration of, the intervals between them, and their relation to play and work.

Food :—Its quantity and its quality ; and the causes of appetite, and of the want of appetite, in schoolboys.

It is no new idea that food is essential to life ; further, it is undesirable to be taking that food all day long, nor is it well to take it in one enormous dose once a day as did the celebrated Dr. Fordyce, of St. Thomas's Hospital. The necessity of meals therefore arises, and one of the questions I would ask is, How many meals are necessary or advisable at school, and when should they be taken ? Should we simply have breakfast, dinner, and tea at 8 a.m., 1 p.m., and 7 p.m. ? or should we supplement or supplant these by early breakfast at 7 a.m., then breakfast, dinner, early tea, and late supper ? To establish one fixed point and radiate therefrom,

I think it is generally agreed that the main meal of the day for schoolboys should be taken in the middle of the day and not in the evening. The doubtful point is whether the heavy midday meal causes serious interference with work or play; and, if so, whether dinner might not for this reason be postponed till later. Masters have told me that work after dinner is not at all satisfactory, their pupils are too sleepy to gain the full benefit of work at that time. If work is not undertaken then, play must be—and we are faced with the responsibility of allowing hard play soon after the midday meal—and a side issue involved is, how much interval must elapse before the compulsory game commences. By reference to the Chart on the opposite page, you will see that at Haileybury, dinner is at 1.30 p.m., and lasts half an hour; and that on whole school days, *i.e.*, on three days a week, play begins of necessity at 2.30 p.m. In winter the boys must play sometime about the middle of the day so as to secure the light. Unless, therefore, the morning's work is interfered with, dinner must be just before play. Parents sometimes complain of the risk their sons run by being made to join in compulsory games so soon after food. In my experience direct harm seldom comes from this plan; I have never seen or heard of vomiting on the football field, though this is not so infrequent during paperchases.

Judging also from the natural instincts and habits of young people, I am inclined to think that exercise under these circumstances is not so harmful as on first thoughts we should suppose. The stimulating and exciting influence of food always induces children and adolescents to get up from table to "bear-fight" and play; and, except when under control, they never sit still. Their digestion is more rapid and certain than adults, and it is just possible that the additional movement may actually assist them. A recent case of epileptoid convulsions, I must admit, I attributed to football soon after the midday meal. On the other hand, I am convinced that boys intending to play a hard game generally make only a light meal, as they are of opinion that food of any kind interferes with their training and wind. It is to obviate the necessity for this, that I would suggest that at

least one hour should elapse between food and play. It is unfortunate we cannot give the schoolboy a half holiday every day to enable him to digest his dinner. There are, doubtless, schools which adopt entirely different hours, and I should like to hear some ideal arrangement from those present.

To turn to breakfast. In all cases where lessons are done before breakfast, it would seem advisable to impress on house masters and those responsible, that some food is most essential before lessons commence. I am strongly of the opinion that this should be a compulsory meal and rank in much the same order of importance as the other meals, and that a boy should have no chance of "cutting" it.

It would seem almost superfluous to adduce argument in favour of this meal, were it not for the fact that it is unusual and unpopular both with masters and boys. In the boarding-house there should be no difficulty either in supplying it, or in seeing that every boy partakes of his share; but where the hostel system exists, the difficulty is increased by the necessity of assembling the entire school in the dining-hall for a short time only, thus giving masters extra work in supervision and boys extra trouble. If a voluntary meal is supplied, few, in my experience, will take it. The boy prefers to rise from his bed at the last moment which will enable him to get in time for chapel or school. Boys have told me they don't care for food at that time, they don't feel hungry; others say it spoils their breakfast; and the meal is partaken of by a few small boys only. In the summer, I find the early bathers like this meal; but in winter, only the energetic few, who are up early to learn their "rep," patronise it at all. It seems to me a meal as to the necessity for which there is no doubt; the youth has been undergoing a fast of from ten to thirteen hours, and has to change from his warm bed to his cold form-room, whilst his bodily temperature is nearly at its lowest limit. It is the experience of nurses and travellers that they fall victims less readily to malarial and infectious fevers, if they start their day with a meal. In epidemics we have always thought that leaving off first lesson, and thus taking the meal before work, helped to check the spread of the illness. At Hailey-

bury we have a voluntary meal of cocoa and bread at 7.15 a.m. I find that at most 25 per cent. avail themselves of it. "An empty stomach makes a coward of any man," and "there is little but a platter of food between a man's best and worst." Why, therefore, allow schoolboys to go to early lesson without that platter? With it they would certainly work better; and possibly fainting in early chapel, and allied troubles, would be less often heard of. The main breakfast should in all cases be the first item of the day for all children under twelve. I think it is a point for discussion whether a similar plan should not be adopted for public schools also. Breakfast proper should last compulsorily for a quarter of an hour or twenty minutes, and as much longer as the boys like. Half an hour's interval should at least be allowed before work begins, for the encouragement of healthy habits. I find that very small attraction is occasionally sufficient to take a boy from the breakfast-table, and even to induce him to avoid going to breakfast altogether. For example, I found out that several youths were in the habit of cutting breakfast on the day of delivery of the Illustrated Papers, and others for similar reasons. "You may take a horse to the water, but you cannot make him drink"; you, however, diminish the chance of his quenching his thirst by not taking him to the water. I would, therefore, suggest to schoolmasters that no loophole be allowed to any boy, that might enable him to escape going to this meal. The more responsible people there are to see that he eats it when there the better. If a boy cannot eat breakfast, he must have some private source of "grub," or there must be something amiss; and this should be brought before the doctor's notice.

On the question of meals after dinner, I am of opinion that a substantial tea at 7.0 or 7.30 p.m. is all that is required. I do not think it is advisable to make this meal any later. Anything that might be termed a sit-down supper is to be avoided. In the case of a boy who for any reason may have made a light tea, it should be possible for him to have access to a limited amount of bread and butter, with a small quantity of cocoa or milk, before going to bed. Anything that might lead to a disturbed digestion, or a loaded bladder

in the early hours of the morning is, for many reasons, both moral and physical, to be avoided. Parents sometimes write to complain that their sons are growing so fast or learning so slowly, "cannot they have something for lunch in the middle of the morning and in the afternoon to supplement the regular meals?" For the majority this homœopathic method of taking food is to be deprecated; the stomach gets no chance of its required intervals for rest. The medical officer should be left to order for the young and delicate what he deems a fitting extra.

Now as to the main character of these meals. I think the early breakfast should consist of either cocoa or coffee with plenty of milk. Personally, I prefer to recommend cocoa, as I think that coffee is unpalatable to many boys; its special taste takes more time to acquire, and boys are always suspicious that it has too much or too little chicory, or some similar defect. Cocoa is not so liable to these accusations. Plenty of milk, however, is the main point. Bread, or bread and butter, should also be allowed.

Breakfast proper, in my opinion, is the meal that requires most improvement; dinner is of much the same meat-and-pudding type at all schools, and can take care of itself; but breakfast varies immensely in quality. It should contain some form of animal proteid, and in the winter one dish at least should be a hot one. This finds its most appetising form as fish, eggs, ham, or bacon. Porridge is most excellent, and should be obtainable three or more times a week; plenty of milk and sugar should be allowed with it. I think, however, boys should be encouraged to take it at the end of a meal, instead of at the beginning; it is so bulky in comparison to its nutritive value, and as it requires no biting, leads to bolting, and quantities of air are swallowed with it, and thus by the sensation of fulness a boy is deceived into the idea he has made a good meal.

There is not much to be said about dinner. It generally represents the best effort of the day in the feeding way. One of the great difficulties is to supply green vegetables all the year round, and even if supplied the difficulty of getting them eaten still remains. At Haileybury we have lately started soup, which has proved exceedingly popular, and can

be made the vehicle for much vegetable salts. Its cost is practically negligible with good management. In the spring we try to partly overcome the vegetable difficulty by serving out an occasional orange, apple, or baked potatoe with breakfast.

School puddings of the ordinary kind are not always ideal, the number of inexpensive, interesting varieties are strictly limited. In the fruit season things are better; but anything of the roley-poley type, though most wholesome, is unpopular with boys, one of whose main objects seems to be in what they call good training.

As to alcohol, I think that a glass of mild beer should be allowed as a concession to custom. I do not consider it of any value in the dietary of the healthy schoolboy. At Haileybury the school is supplied with a particularly mild beer, brewed specially for them, and I find that one boy in every four drinks two glasses with his dinner, varying slightly in summer and winter. I think it would be unwise to forbid alcohol altogether, as this would excite a craving for it (boys always want what they are not allowed), and this craving might induce visits to publichouses and endless trouble. I try to discourage parents who want their boys to have stout or wine as extras.

Water should be from a good source, and care should be taken to have it fresh for each meal. Slovenly habits lead servants to fill up half-emptied bottles or jugs, instead of emptying and washing them each time, thus helping to render an excellent beverage unpalatable and unwholesome.

Tea should be mainly a farinaceous meal. Tea, bread and butter and jam should be the chief ingredients. I do not think it necessary or advisable that this, the last meal of the day, should include meat, cheese, or beer.

Now to consider the quantity of the food. The scientific standards of diets, and the actual diets of healthy communities, should be the guide for determining the quantity of food necessary for the schoolboy. I have therefore made out some tables to show actual and scientific diets. One is that recommended by Dr. Clement Dukes, in his excellent work on "Health at School," and found by him to be practically the working table of a first-class boarding-house

at Rugby. Another is that of a school of 600 boys at Indiana, where it was characterised by Miss E. Richards, U.C., in a Paper on “Food as a Factor in Student Life,” as being a wholesome and sufficient dietary. The third is the diet of the University of Chicago, numbering 106 female students. A fourth is the soldier’s diet, and the fifth the Haileybury College diet. This latter was estimated by me by taking the exact entries in the steward’s provision book for the year 1893, adding up the amounts, and dividing the totals by the number of consumers, and the number of weeks taken to consume these quantities of food. These figures have been worked to several places of decimals, but for convenience of comparison these have been omitted. The figures obtained do not accurately represent the Haileybury diet, as it has been modified in various ways, but I give it as it was in 1893.

DIETS IN OUNCES PER WEEK PER HEAD.

	Haileybury in 1893.	Dr. Dukes.	Indiana.	Chicago.	Standard. Moleschot.	Standard Diet. Koenig.	The Soldier.
Bread ...	96	130	89*	62*	123	73	148
Oatmeal ...	2½	3	—	—	—	—	—
Flour ...	5½	—	—	—	—	—	—
Sugar ...	8¼	24	15	15½	16	—	—
Butter ...	9	12	12	11	16	3½†	9¼
Milk ...	70	200	74½	145	—	61½	22¾
Meat ...	80	96	53	94	94½	42	84
Soup ...	—	30	—	—	—	—	—
Fish ...	8	16	13	5¾	—	—	—
Eggs ...	2	—	—	—	—	—	—
Cheese ...	2	3	—	4¾	—	—	—
Potatoes ...	60	56	121½	75	61	44	102
Greens ...	10?	21	56	24	55	44	56
Jams and Preserved Fruits ...	2	16	—	—	—	—	—
Fresh Fruit..	?	16	—	—	—	—	—
Puddings, Cakes and Buns ...	?	42	—	—	—	—	—

* Called Flour and Grain.

† Fat.

I have made some further calculations as to the constituents of the Haileybury diet, and have tabulated the

results, and placed them side by side with Moleschot's Standard Diet and the Scientific Diet as calculated by Parke's Dietary Tables.

	Calculated by Parkes' Dietary Tables: The 110-lb. individual requires			The Haileybury 110-lb. boy gets			Moleschot's Standard for 150-lb. adult doing 300 ft. of work allows		
	Oz.			Oz.			Oz.		
Albuminates...	...	3·41	...	...	3·88	...	...	4·59	
Fats	2·09	...	...	2·75	...	...	2·96	
Carbohydrates	...	10·45	...	...	12·00	...	...	14·26	
Salts	0·77	...	...	0·5	...	...	1·06	

EQUIVALENT IN GRAINS.

	Grains.			Grains.			Grains.		
Nitrogen	235	...	...	264	...	...	317	
Carbon	3,410	...	...	3,327	...	...	4,750	
Hydrogen	143	...	...	180	...	...	202	
Sulphur	27	...	...	30	...	...	24	
Salts	336	...	...	218	...	...	350	

We have then to decide the special features that should guide us in selecting our school dietary, and these may be enumerated thus :—

The average weight.

The average age.

The mechanical work required.

The nature of pursuits, both mental and physical.

The possible requirements of growth and development.

To take Haileybury as my example, the average age of 508 students, on October 11th, 1893, was 15 years 4 months. The average weight was approximately 110 lbs. Now, what can we say on the question of the mechanical work? What can we expect from the 110 lb. schoolboy? 110 lbs. being nearly 1 cwt., and 20 cwt. 1 ton, if we allow the 110 lb. boy 300 ft. tons (the adult's ordinary day's work is calculated to be 300 ft. tons), this is equivalent to a climb of 6,000 ft.

I find on calculation that the Haileybury diet is capable of yielding 3,361 ft. tons of potential energy; and, allowing 260 ft. tons as the amount required for the internal muscular and circulatory phenomena (260 is the amount allowed for the adult), I then find the Haileybury diet would give 221 ft. tons of energy available as mechanical work. This is equal

to a climb of over 4,000 ft., or a walk of $16\frac{1}{2}$ miles at 3 miles an hour, or $12\frac{3}{4}$ miles at 4 miles an hour, in ordinary clothes along a level road. I may add that Moleschot's Standard Diet gives for the average man (150 lb.) with 300 ft. tons work equal to a walk of 16 miles at 3 miles an hour. There are no data on which to estimate the actual mechanical work the boy does in a day ; this can be only a matter of opinion, and I should like to hear yours. Also, what can we estimate the internal work at ? Haughton and Parkes allow 260 ft. tons as the requirement for the average adult. Can we suppose the boy wants more because of the extra vigour of his organs, or less because of his smaller size ?

Another point is, what must we allow for the boy's growth and development ? Can we think that to add to his stature he must eat so many more ounces of food daily than the adult who has finished growth ? We certainly know that growth may be checked by underfeeding, but what evidence have we that overfeeding leads to overgrowth ? It seems to me unnatural to imagine that to add say one pound to the boy's weight, so many pounds, hundredweights, or even tons must be consumed, which the organs then sample and select their required pound from, and all the rest is wasted. Would it not be more reasonable to think that if the boy is being supplied with the necessary diet to work his work and play his play, the minute percentage that is eventually changed into his bodily structure must be readily forthcoming ? I would, therefore, think that the expression "feed him up, he is growing so fast," implies a slightly false meaning ; it should anyhow refer to the quality, rather than the quantity, of the food.

As we have the diets both of Rugby and Haileybury it may be useful in establishing a standard to compare the physical development of the two schools. I am indebted to Mr. Cecil Hawkins, who has recently produced a large number of figures dealing with this subject ; some of them are published as an appendix to the report of the Royal Commission on Secondary Education. The Rugby averages are deduced from data given by Professor Windle of Mason College, Birmingham, in a Paper communicated to the Birmingham Philosophical Society.

Means—

	lbs.
Haileybury : Annual average increase of 539 boys during first three terms at school	9·85
Rugby : Annual average increase of Rugby boys between $13\frac{1}{2}$ and $14\frac{1}{2}$	9·4
14 „ 15	9·8

Averages—

A	{	Haileybury boy who enters 14 years 1 month (254 observations) weighs	92
	{	Haileybury boy who, after three terms at school, reaches $14\frac{1}{12}$ (200 observations) weighs.....	92·9
	{	Rugby boy at age 14 (235 observations) weighs	93·8
B	{	Haileybury boy who enters $13\frac{1}{2}$ (118 observations) weighs	87·5
	{	Rugby „ at $13\frac{1}{2}$ (163 „) „	89·5
C	{	Haileybury boy who, after three terms at school reaches $14\frac{1}{2}$ (151 observations) weighs	98·5
	{	Rugby boy at same age (251 observations) weighs	99·2

In the first series a few of the boys depart rather widely from the mean in age ; the mean is roughly $13\frac{1}{2}$ years on entering, and a large majority are between 13 and 14.

The first series speaks for itself. Series **A** shows (i) that the boy of 14y. 1m. on entry at Haileybury is lighter than the boy who attains that age at the end of three terms ; (ii) that both these boys are lighter than the Rugby boy of the same age.

Series **B** show that the boy on entry at Haileybury, aged $13\frac{1}{2}$, is 2·3 lbs. lighter than the Rugby boy at the same age.

Series **C** shows that one year later the Haileybury boy has got within ·7 lb. of his rival ; whether he will make a bump I have no statistics to prove.

The work done in school by every Haileybury boy is 39 hours per week ; 14 hours more may be devoted to private tuition by those taking special subjects, and more time still may be spent in voluntary studies.

In estimating the value of the Haileybury diet, I have allowed $\frac{1}{12}$ waste in bread, $\frac{1}{2}$ in meat, and $\frac{2}{3}$ in potatoes. The meat has less per cent. of bone than usual, but loses more in cooking, being mostly roasted on a mechanical spit.

I have recently been walking about the dining-hall with some weights and measures, and have made numerous obser-

vations from which I am able to deduce the fact that just about half the uncooked meat reaches the boys' stomach, and half is lost or wasted. I append two examples.

Round of Beef—

Before roasting.....	23½ lbs.
After „	15¼ lbs.
Loss in cooking	8¼ lbs.
After 26 boys (average age) had dined there was left ...	6½ lbs.
Scraps wasted on plates	1 lb. 3 oz.
Actually consumed	7 lb. 6 oz.
Average per head	4½ oz.
A helping of beef weighs from 1¾ oz. to 2¾ oz.	

Haunch of Mutton—

Before roasting.....	16 lbs.
After „ ..	11 lbs.
Loss in cooking.....	5 lbs.
After 26 boys had dined	3¾ lbs.
Scraps wasted on plates	2 lbs. 3 oz.
Actually consumed	5 lbs.
Average per head.....	3 oz.
Helping of roast mutton weighs from 2 to 2¾ oz.	

Now, to go to a few items of the diet, let us take the meat. Dr. Clement Dukes recommends 96 oz. of meat per week; judged by the preceding tables half this would reach the stomach—that is, 48 oz., or nearly 7 oz. a day. Suppose a boy eats 4½ oz. at dinner, which I believe is a more than usually good meal. He has to get in 2½ oz. at some other time; he has also to eat several ounces of fish and eggs. I rather think he will have great difficulty in doing it, unless he has meat at his supper, which is unwise. I imagine, therefore, that the boarding-house allowance must imply that the waste in feeding 50 is vastly out of proportion to that in feeding over 500, as is daily done at Haileybury.

The sugar is very lowly represented in the Haileybury diet chart; but since the subject was investigated, I feel that the quantity has been at least doubled. So excellent and cheap an item should be supplied with great liberality, as it satisfies a natural craving. We found that nearly twice as much was consumed in the warm months of the year as was used in the winter; fruit tarts accounting for most of it. All the tea was sweetened; no sugar was given with por-

ridge for fear of waste, and the imaginary evils attached to eating sugar. We have now had numerous sugar basins placed on the breakfast-table, and the boys are encouraged to eat as much as they desire. The medical officer should decide if any individual should avoid this useful form of food.

Then as to milk. 200 oz. means nearly $1\frac{1}{2}$ pints a day. Unless milk be given instead of tea and coffee, I cannot see how the quantity can be drunk, much as we should like it.

With regard to bread. At Haileybury as much bread is supplied (and the same holds good for every other item) as we can induce the boys to consume, there is no restriction in any way. The facilities and inducements to eat it are as complete as ingenuity and forethought can suggest; our result gives 96 oz. as opposed to 130 oz.; the difference may be in the question of waste.

In conclusion, to mention the quality of a few items, I think bread the most important. To get fresh sweet bread is a difficulty, and any suggestion as to the best method of keeping bread fresh I should highly appreciate. The open iron cages in the larder may be the cause of the rapidity with which the bread dries. The bread pan of the private house would be impossible on the large scale, and closed receptacles are more suspicious dirt harbourers than open ones. Variety of bread is of great value; white, brown, and wholemeal should all find a place, and even Hovis and Triticumina. But even more important still is the variety of white bread; the same exact type of bread day after day is most unappetising; even different shapes are worth consideration. One source only is, however, advisable. Lately, twice a week, we have given boys bread baked on the day of consumption; it is not hot, but quite new, and is made in specially flattish twists so as to have a large percentage of crust. I think this excellent for a change.

You will agree that the source of butter is of equal importance to that of milk; its flavour should not be pronounced in any way. This is essential, as it is one of the few ways in which boys will take fat.

The cost of the Indiana diet was 1·4 dollars, *i.e.*, about 6s.

per head per week; the Chicago diet about 14s. Both included service.

The food for the Haileybury boy, apart from the expense of cooking or serving it, cost 8s. 7½d. per head per week in 1893. Some years back, when the food was contracted for, it cost 10s. 6d.; it was then dropped to 7s., with many excellent improvements, and has of late years been raised to the present sum. In dealing with the question of expense, I should like to mention the potatoes. In preparing these for table two machines are used,—one to wash, the other to peel the potatoe; at a very low estimate it is calculated that since these two machines have been used some £70 worth of potatoes have been saved yearly. If we could only deal with other items in the same way, the money available for improving the diet would be considerable.

I find that 16 oz. of scrubbed potatoes lose exactly 3 oz. when peeled by machinery; they cannot be peeled by hand without the loss of 4 oz., generally far more is wasted. I also find that 13 oz. of peeled potatoes gain 1 oz. in weight by steaming, and remain the same weight after boiling.

The causes of healthy appetite among schoolboys may be enumerated thus—

- (i.) Good health.
- (ii.) Prospect of good and varied food.
- (iii.) Coming to that food fresh and clean, not fagged out by play or mental work. I think clean teeth lead to clean plates. A rush to breakfast before there is time to wash the mouth and teeth is not conducive to making a good meal. The quality and quantity of the teeth is also of the utmost importance.
- (iv.) Avoidance of irregular “grubbing” or visits to the pastry-cook.
- (v.) Good waiting is a very important point, for however good the food may be, a dirty waiter may spoil its entire value. There is a difficulty attached to having female servants, and the second-class male indoor servant does not exactly perform the function of sherry and bitters. Housekeepers cannot be too careful in seeing to the cleanliness of their underlings.

- (vi.) Clean plates, forks, spoons, &c., are helpful ; good carving is more so, and the appetising effects of the sharp carving-knife must not be overlooked.

Want of appetite at school meals may be due to—

- (i.) Ill-health.
- (ii.) What, for convenience, I will call the “ Private Larder system.” There is little doubt that the schoolboy derives immense pleasure from his own private stock of “ grub,” and it would be inflicting upon him a severe blow if he were not allowed to supply himself with a few luxuries, or to receive the occasional hamper from home. Yet this private housekeeping is a fruitful source of trouble. I think strict limits might be placed upon it with advantage. I would forbid boys to have anything but school food for breakfast and dinner, but would leave tea for their jams and other dainties. I would forbid potted meats and fishes altogether. The rate of consumption of these latter is so slow as to lead to decomposition long before they are finished. The possession and expenditure of pocket money is of the utmost educational advantage, but there are other things on which to spend it besides the private larder ; and housekeeping is not at present a necessary male accomplishment. An unlimited licence to visit shops is not desirable. At Haileybury we have a “ grub shop,” which is worked by the committee of games, thereby complete control of the articles sold is maintained by the school authorities, and a handsome income is realised for the benefit of the school games. This system is an excellent one.
- (iii.) Reading during meals I consider to be non-conducive to making a good meal. The modern novel, the account of the latest cricket match, and the Parliamentary reports are too thrilling. At Haileybury, reading is allowed at dinner on week-days, but not on Sunday. On week-days the meal is a quiet one, and always finished before the half-hour ; on

Sundays, a noisy one, and lasts longer than the allotted time. I think the boys eat more on Sundays.

- (iv.) Parents do much during the holidays to spoil school-boys' appetites by the many luxuries they allow their children to indulge in. It is a pity they do not teach them that the best food procurable is good plain food.
- (v.) I consider it a mistake to maintain a fixed order of diet, so that a boy knows what there will be to eat on any particular day of the week. A little ingenuity on the part of the housekeeper could make each meal a surprise party.
- (vi.) Fashion is also an important point. Certain big boys may refuse to partake of a dish ; the smaller ones will then often follow suit.
- (vii.) But the most important cause of all, in my opinion, is want of confidence in what is placed before them, and I think this the most difficult to overcome. Frequently a boy suspects his food of possessing all the bad qualities that it is capable of ; labelling it "resurrection," "scraps," "college muck," and so forth—and this frequently against all reason. It seems to me a point on which the schoolboy is badly educated. Only a few years back the schoolboy looked upon his master with the utmost suspicion and contempt, but of late years a considerable change in the relation between them has taken place. The innate hostility has been overcome by the friendly advances of the modern master, and the boy realises there is no longer cause for suspicion and distrust. I think it remains for the schoolmaster and housekeeper to go a step further, and win the boy's confidence in the matter of his food. At present a boy would say "bad" food, "worse" food, "school" food ; without changing the food I feel sure we might change the boy's opinion, and thus his appetite. An example happened only the other day, where a boy was tricked into helping himself to school cheese,

thinking it was his own. He ate it with relish, and, when induced to try his own, passed most adverse comments on it.

Our matron at the Sick House tells me, when she dines with the convalescents and carves the sirloin of beef, the boys generally remark how nice it is and take two helpings. If, however, she is unable to dine with them, but carves the joint in the adjoining kitchen and sends it in to them, they eat a mouthful or two out of the centre and leave the rest, and seldom take a second helping. Is not this purely a question of confidence? In our school dining-hall the scraps are the perquisites of the married waiters. We do our best to point this out to boys, especially when there is any made up dish. I have also found it a good plan to invite dainty youths to visit the kitchen, which is quite a show place. Without his confidence we cannot do much to improve the meals and food of the schoolboy.
